

ing this scale in alternating order will be found two more of the shape indicated in Fig. 3. All three scales are visible on any bud without dissection (Fig. 1). Within these are two leaves (Fig. 4) and in the center the flower bud (Fig. 5). The general arrangement of the parts can be seen in Fig. 6 A. The style (Fig. 8) is already quite well developed, the lobes and furrows being distinctly shown and the stamens (Fig. 9) contain the rudimentary

Fig 3



Fig 4



Fig 5

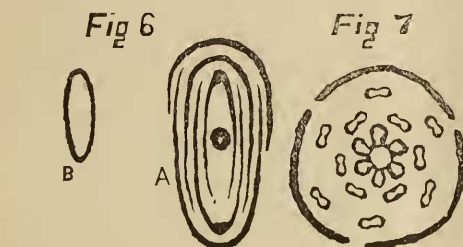


Fig 7



pollen of the next year. The arrangement of the parts of the flower may be seen in Fig. 7. The buds are easily attainable

Fig 8.



X 8

Fig 9.



X 10

in spring and it seems to me could be profitably used in the class room in comparison with the hibernacula of ligneous plants.—*Aug. F. FOERSTE, Dayton, Ohio.*

The Lignified Snake from Brazil.

It will be remembered that in the December GAZETTE a brief notice was given of what was described as being a lignified reptile. A tolerably full account of this phenomenon was given in the *Popular Science Monthly* and *Torrey Bulletin* for November, the account being the reproduction of one published in the French *La Nature* of last April. This account comes with all the authority of M. Olivier and the Botanical Society of France. It seems that the piece of wood containing the specimen is the property of Senor Lopez Netto, Brazilian Minister to the United States, who first took it to France but has it now in this country. After running the gauntlet of the scientists of Rio de Janeiro and the Botanical Society of France it has remained for our keen-sighted and quick-witted veteran botanist, Dr. Gray, to call in question its genuineness. Alas for the phenomenon that is not sure of its foundations when Dr. Gray lays his heavy hand upon it! Hear what he has to say about this latest "snake story":

"Through the kindness of the Brazilian Minister, we have seen

¹ *Am. Jour. Sci.* Jan. 1883, p. 81.

and examined the original specimen, and have been presented with an electrotype of it. It is a great curiosity. The resemblance to a snake is wonderfully close, although "the scales and cephalic plates," which M. Olivier identifies with those of a particular Brazilian snake, exist only in a lively imagination. The snake-like surface is covered by delicate meshes of woody fibers; and here and there particular fibers or woody threads can be traced from the body to the woody surface.

The adopted explanation requires us to suppose that a snake had forced his way between the bark and wood of a living tree in a position exactly under a grub or larva; had perished there when within half an inch of its prey; was somehow preserved from decay, even to the eye-sockets and markings of the skin, until a woody growth had formed, the elements of which replaced the whole superficial structure of the animal,—until the animal was lignified! Two other and more probable explanations have suggested themselves. One is, that the snake-like body is of the nature of a root, an aerial root, like those of a *Clusia* or a *Ficus*, which was making its way between bark and wood; and that the supposed larva is an incipient root of the same kind. The other supposes that the sinuous course is the track of a wood-eating larva or some kind of insect, the burrowing of which had not destroyed the overlying liber; consequently the new growth filling the space (except at certain points) had naturally assumed the likeness of a snake. This explanation was suggested by Professor Wadsworth of Cambridge, examining the specimen along with the writer; and it is to be preferred. Still, that head and neck should be so well outlined, and the former so well represent a pair of orbits, were surely most wonderful. But a close inspection of the electrotype showed that there had been some cutting away at the right side of the neck, and that the narrowing there was in part factitious; and less decisive indications suggested that other outlines had been touched up. The subsequent inspection of the original confirmed this; and likewise enlightened us about the eyes. For the left orbit was found to occur, not in a woody structure, like that of the right side, but in a dark material having the appearance of pitch or cement of some sort.

We may rest assured that whatever there may be which is factitious in this most curious *lusus naturæ*, originated before it came into the hands of His Excellency the Brazilian Minister at Washington."

Epiphegus Virginiana.

(PLATE I.)

This little plant being somewhat remarkable in its peculiar way of living, we thought it might not be amiss to follow it in its career from infancy, on through its struggle for existence, to the maturity of its fruit, after which, when thousands of little seeds.